CLAIMS

What is claimed is:

1   1. A communications back-channel, for coordinating routing decisions, the

2   communications back channel comprising:

3   a plurality of networking devices;

4   a plurality of routing intelligence units, wherein each of the plurality of the

5   plurality of routing intelligence units includes software for controlling a distinct subset of

6   the plurality of networking devices, each of the plurality of routing intelligence units

7   further including:

8   one or more processes for controlling the distinct subset of networking

9   devices; and

10   one or more coordination processes for exchanging routing parameters with

11   the plurality of routing intelligence units.

1   2. The communications back-channel of claim 1, wherein the one or more processes

2   for controlling the distinct subset of networking devices are Border Gateway Protocol

3   (BGP) sessions.

1   3. The communications back-channel of claim 2, wherein each of the routing

2   intelligence units is a route-reflector client.

1   4. The communications back-channel of claim 3, wherein each of the distinct subset

2   of networking devices is a route reflector to the route reflector client.

1   5. The communications back-channel of claim 1, wherein the one or more

2 coordination process in each of the routing intelligence units includes BGP sessions.

1   6. The communications back-channel of claim 5, wherein the BGP sessions in the one

2 or more coordination processes of each of the routing intelligence units includes:

3   at least one BGP process; and

4   at least one BGP stack, such that the at least one BGP stack exchanges

5 routing parameters between the routing intelligence unit and the at least one BGP process,

6 and the at least one BGP process exchanges routing parameters with the plurality of

7 routing intelligence units.

1   7. The communications back-channel of claim 6, wherein the at least one BGP stack

2 is a route reflector client, and the at least one BGP process is a route reflector.

1   8. The communications back-channel of claim 6, wherein the routing parameters

2 include local path performance characteristics.

1   9. The communications back-channel of claim 6, wherein the routing parameters

2 include performance scores for routes.

1   10. The communications back-channel of claim 9, wherein the performance scores are

2 exchanged via a Local Preference field.

1   11. The communications back-channel of claim 1, further comprising:

2   a plurality of communication links directly coupling the plurality of routing

3 intelligence units, wherein the plurality of communication links are dedicated exclusively

4 for exchanging routing parameters between the plurality of routing intelligence units.

1   12. The communications back-channel of claim 11, wherein the plurality of

2 communication links are at least partially comprised of physical links between the

3 plurality of routing intelligence units.

1   13. The communications back-channel of claim 11, wherein the plurality of

2 communication links are at least partially comprised of logical links between the plurality

3 of routing intelligence units.

1   14. A method of exchanging routing parameters amongst a plurality of decision

2 makers, each decision maker controlling a distinct subset of a plurality of routers, wherein

3 the plurality of decision makers are in communication via a dedicated mesh, the method

4 comprising:

5   asserting a first plurality of preferred routes for a first plurality of prefixes to

6 the subset of routers; and

7   concurrent with the asserting the first plurality of preferred routes, sending a

8 plurality of local performance scores for the first plurality of routes to the plurality of

9 decision makers via the dedicated mesh.

1   15. The method of claim 14, further comprising:

2   receiving a second plurality of routes for a second plurality of prefixes via the

3   dedicated mesh.

1   16. The method of claim 15, further comprising:

2   receiving a plurality of performance scores for the second plurality of routes.

1   17. The method of claim 16, wherein the plurality of performance scores are included

2   in one or more Local Preferences fields in a BGP feed.

1   18. The method of claim 16, further comprising:

2   applying penalties to each of the plurality of performance scores.

1   19. The method of claim 14, wherein the asserting the first plurality of preferred

2   routes is performed via a BGP feed to the subset of routers.

1   20. The method of claim 14, wherein the plurality of local performance scores are sent

2   via a BGP feed to the dedicated mesh.

1   21. The method of claim 14, wherein the dedicated mesh is at least partially

2   comprised of physical links between the plurality of decision makers.

1   22. The method of claim 14, wherein the dedicated mesh is at least partially

2   comprised of logical links between the plurality of decision makers.